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RECEIVED**RAW SEQUENCE LISTING**

PATENT APPLICATION: US/09/804,490

DATE: 06/28/2002

TIME: 07:17:34

Input Set : N:\Crf3\Datahold\EFS\09804490\CIBT-P01-114SequenceListing.txt

Output Set: N:\CRF3\06282002\I804490.raw

5 <110> APPLICANT: Burkly, L.
6 Wang, J.
8 <120> TITLE OF INVENTION: HEDGEHOG AND PATCHED ANTAGONISTS FOR INHIBITING CELL AND
TISSUE GROWTH
9 AND DIFFERENTIATION AND USES THEREOF
11 <130> FILE REFERENCE: CIBT-P01-114
13 <140> CURRENT APPLICATION NUMBER: 09/804,490
14 <141> CURRENT FILING DATE: 2001-03-12
16 <150> PRIOR APPLICATION NUMBER: 60/100,037
17 <151> PRIOR FILING DATE: 1998-09-11
19 <160> NUMBER OF SEQ ID NOS: 1
21 <170> SOFTWARE: PatentIn version 3.1
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 176
25 <212> TYPE: PRT
26 <213> ORGANISM: Artificial Sequence
28 <220> FEATURE:
29 <223> OTHER INFORMATION: Consensus sequence of the N-terminal domain of vertebrate
hedgeho
30 g protein
32 <220> FEATURE:
33 <221> NAME/KEY: MISC_FEATURE
34 <222> LOCATION: (6)..(6)
35 <223> OTHER INFORMATION: Xaa=Val or Gly
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38 <221> NAME/KEY: MISC_FEATURE
39 <222> LOCATION: (7)..(7)
40 <223> OTHER INFORMATION: Xaa=Val, Phe or Pro
42 <220> FEATURE:
43 <221> NAME/KEY: MISC_FEATURE
44 <222> LOCATION: (8)..(8)
45 <223> OTHER INFORMATION: Xaa=Gly or Val
47 <220> FEATURE:
48 <221> NAME/KEY: MISC_FEATURE
49 <222> LOCATION: (9)..(9)
50 <223> OTHER INFORMATION: Xaa=Ser or Gly
52 <220> FEATURE:
53 <221> NAME/KEY: MISC_FEATURE
54 <222> LOCATION: (10)..(10)
55 <223> OTHER INFORMATION: Xaa=Arg or Lys
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58 <221> NAME/KEY: MISC_FEATURE
59 <222> LOCATION: (13)..(13)
60 <223> OTHER INFORMATION: Xaa=Phe, His or Tyr

62 <220> FEATURE:

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63 <221> NAME/KEY: MISC_FEATURE
64 <222> LOCATION: (14)..(14)
65 <223> OTHER INFORMATION: Xaa=Pro or Ala
67 <220> FEATURE:
68 <221> NAME/KEY: MISC_FEATURE
69 <222> LOCATION: (15)..(15)
70 <223> OTHER INFORMATION: Xaa=Arg or Lys
72 <220> FEATURE:
73 <221> NAME/KEY: MISC_FEATURE
74 <222> LOCATION: (17)..(17)
75 <223> OTHER INFORMATION: Xaa=any amino acid
77 <220> FEATURE:
78 <221> NAME/KEY: MISC_FEATURE
79 <222> LOCATION: (19)..(19)
80 <223> OTHER INFORMATION: Xaa=Val or Thr
82 <220> FEATURE:
83 <221> NAME/KEY: MISC_FEATURE
84 <222> LOCATION: (22)..(22)
85 <223> OTHER INFORMATION: Xaa=Ala or Leu
87 <220> FEATURE:
88 <221> NAME/KEY: MISC_FEATURE
89 <222> LOCATION: (27)..(27)
90 <223> OTHER INFORMATION: Xaa=Ser, Ile or Val
92 <220> FEATURE:
93 <221> NAME/KEY: MISC_FEATURE
94 <222> LOCATION: (29)..(29)
95 <223> OTHER INFORMATION: Xaa=Asn or Gly
97 <220> FEATURE:
98 <221> NAME/KEY: MISC_FEATURE
99 <222> LOCATION: (31)..(31)
100 <223> OTHER INFORMATION: Xaa=Pro or Ala
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103 <221> NAME/KEY: MISC_FEATURE
104 <222> LOCATION: (41)..(41)
105 <223> OTHER INFORMATION: Xaa=Tyr or Ala
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108 <221> NAME/KEY: MISC_FEATURE
109 <222> LOCATION: (45)..(45)
110 <223> OTHER INFORMATION: Xaa=Ile or Val
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113 <221> NAME/KEY: MISC_FEATURE
114 <222> LOCATION: (46)..(46)
115 <223> OTHER INFORMATION: Xaa=Ala or Ser
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119 <222> LOCATION: (48)..(48)
120 <223> OTHER INFORMATION: Xaa=Ser, Asn or Gly
122 <220> FEATURE:
123 <221> NAME/KEY: MISC_FEATURE

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124 <222> LOCATION: (54)..(54)
125 <223> OTHER INFORMATION: Xaa=Glu or Asp
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135 <222> LOCATION: (71)..(71)
136 <223> OTHER INFORMATION: Xaa=Thr or Ser
138 <220> FEATURE:
139 <221> NAME/KEY: MISC_FEATURE
140 <222> LOCATION: (79)..(79)
141 <223> OTHER INFORMATION: Xaa=Gln or Glu
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144 <221> NAME/KEY: MISC_FEATURE
145 <222> LOCATION: (83)..(83)
146 <223> OTHER INFORMATION: Xaa=Asp or Glu
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149 <221> NAME/KEY: MISC_FEATURE
150 <222> LOCATION: (84)..(84)
151 <223> OTHER INFORMATION: Xaa=Arg or Lys
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156 <223> OTHER INFORMATION: Xaa=Leu or Val
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159 <221> NAME/KEY: MISC_FEATURE
160 <222> LOCATION: (91)..(91)
161 <223> OTHER INFORMATION: Xaa=Ser or Ala
163 <220> FEATURE:
164 <221> NAME/KEY: MISC_FEATURE
165 <222> LOCATION: (95)..(95)
166 <223> OTHER INFORMATION: Xaa=Gln or Met
168 <220> FEATURE:
169 <221> NAME/KEY: MISC_FEATURE
170 <222> LOCATION: (114)..(114)
171 <223> OTHER INFORMATION: Xaa=Ser or Ala
173 <220> FEATURE:
174 <221> NAME/KEY: MISC_FEATURE
175 <222> LOCATION: (115)..(115)
176 <223> OTHER INFORMATION: Xaa=Glu or Gln
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179 <221> NAME/KEY: MISC_FEATURE
180 <222> LOCATION: (116)..(116)
181 <223> OTHER INFORMATION: Xaa=Glu or Asp
183 <220> FEATURE:
184 <221> NAME/KEY: MISC_FEATURE
185 <222> LOCATION: (135)..(135)

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Output Set: N:\CRF3\06282002\I804490.raw

186 <223> OTHER INFORMATION: Xaa=Asn or Ser
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 191 <222> LOCATION: (139)..(139)
 192 <223> OTHER INFORMATION: Xaa=Asn or Met
 194 <220> FEATURE:
 195 <221> NAME/KEY: MISC_FEATURE
 196 <222> LOCATION: (157)..(157)
 197 <223> OTHER INFORMATION: Xaa=Lys or Arg
 199 <220> FEATURE:
 200 <221> NAME/KEY: MISC_FEATURE
 201 <222> LOCATION: (158)..(158)
 202 <223> OTHER INFORMATION: Xaa=Ala or Asn
 204 <220> FEATURE:
 205 <221> NAME/KEY: MISC_FEATURE
 206 <222> LOCATION: (160)..(160)
 207 <223> OTHER INFORMATION: Xaa=Val or Ile
 209 <220> FEATURE:
 210 <221> NAME/KEY: MISC_FEATURE
 211 <222> LOCATION: (162)..(162)
 212 <223> OTHER INFORMATION: Xaa=Cys or Val
 214 <220> FEATURE:
 215 <221> NAME/KEY: MISC_FEATURE
 216 <222> LOCATION: (166)..(166)
 217 <223> OTHER INFORMATION: Xaa=Ser or Ala
 219 <220> FEATURE:
 220 <221> NAME/KEY: MISC_FEATURE
 221 <222> LOCATION: (167)..(167)
 222 <223> OTHER INFORMATION: Xaa=Glu or Asp
 224 <220> FEATURE:
 225 <221> NAME/KEY: MISC_FEATURE
 226 <222> LOCATION: (168)..(168)
 227 <223> OTHER INFORMATION: Xaa=His or Asn
 229 <220> FEATURE:
 230 <221> NAME/KEY: MISC_FEATURE
 231 <222> LOCATION: (170)..(170)
 232 <223> OTHER INFORMATION: Xaa=Ala, Val or Leu
 234 <220> FEATURE:
 235 <221> NAME/KEY: MISC_FEATURE
 236 <222> LOCATION: (173)..(173)
 237 <223> OTHER INFORMATION: Xaa=Lys or Arg
 239 <220> FEATURE:
 240 <221> NAME/KEY: MISC_FEATURE
 241 <222> LOCATION: (174)..(174)
 242 <223> OTHER INFORMATION: Xaa=Thr, Ser or Ala
 244 <400> SEQUENCE: 1

W--> 246 Cys Gly Pro Gly Arg Xaa Xaa Xaa Xaa Xaa Arg Arg Xaa Xaa Xaa Lys
 247 1 5 10 15
 W--> 250 Xaa Leu Xaa Pro Leu Xaa Tyr Lys Gln Phe Xaa Pro Xaa Val Xaa Glu

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```

      251          20          25          30
W--> 254 Lys Thr Leu Gly Ala Ser Gly Arg Xaa Glu Gly Lys Xaa Xaa Arg Xaa
      255          35          40          45
W--> 258 Ser Glu Arg Phe Lys Xaa Leu Xaa Pro Asn Tyr Asn Pro Asp Ile Ile
      259          50          55          60
W--> 262 Phe Lys Asp Glu Glu Asn Xaa Gly Ala Asp Arg Leu Met Thr Xaa Arg
      263 65          70          75          80
W--> 266 Cys Lys Xaa Xaa Xaa Asn Ser Leu Ala Ile Xaa Val Met Asn Xaa Trp
      267          85          90          95
      270 Pro Gly Val Lys Leu Arg Val Thr Glu Gly Trp Asp Glu Asp Gly His
      271          100          105          110
W--> 274 His Xaa Xaa Xaa Ser Leu His Tyr Glu Gly Arg Ala Val Asp Ile Thr
      275          115          120          125
W--> 278 Thr Ser Asp Arg Asp Arg Xaa Lys Tyr Gly Xaa Leu Ala Arg Leu Ala
      279          130          135          140
W--> 282 Val Glu Ala Gly Phe Asp Trp Val Tyr Tyr Glu Ser Xaa Xaa His Xaa
      283 145          150          155          160
W--> 286 His Xaa Ser Val Lys Xaa Xaa Xaa Ser Xaa Ala Ala Xaa Xaa Gly Gly
      287          165          170          175

```

RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 6,7,8,9,10,13,14,15,17,19,22,27,29,31,41,45,46,48,54,56,71

Seq#:1; Xaa Pos. 79,83,84,85,91,95,114,115,116,135,139,157,158,160,162,166

Seq#:1; Xaa Pos. 167,168,170,173,174

VERIFICATION SUMMARY

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Input Set : N:\Crf3\Datahold\EFS\09804490\CIBT-P01-114SequenceListing.txt

Output Set: N:\CRF3\06282002\I804490.raw

L:246 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:250 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:16
L:254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:32
L:258 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:48
L:262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:64
L:266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:80
L:274 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:112
L:278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:128
L:282 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:144
L:286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:160